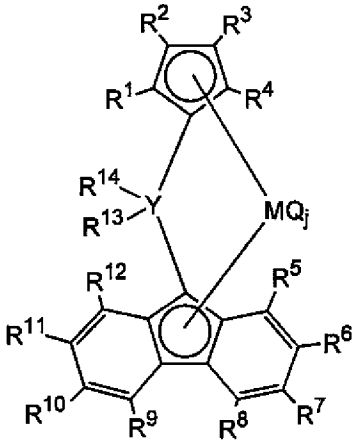
AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A process for producing an olefin polymer, comprising:

carrying out solution polymerization of ethylene and one or more kinds of monomers selected from α-olefins at a temperature ranging from 120 to 300°C, wherein the charge mole ratio of ethylene and α-olefin is in the range of ethylene:α-olefin = 50:50 to 99.9:0.1, in the presence of a catalyst for olefin polymerization, said catalyst consisting essentially of:

(A) a bridged metallocene compound represented by a general formula [I] described below,



--------- [I]

(wherein R^1, R^2, R^3, R^4, R^5, R^8, R^9, and R^{12} are each a hydrogen atom, a hydrocarbon group, or a silicon-containing group, and may be identical or different, or neighboring groups may be bonded together to form a ring structure;

R^6 and R^{11} are identical to each other and are each a hydrogen atom, a hydrocarbon group, or a silicon-containing group, or may be bonded together to form a ring structure;

R^7 and R^{10} are identical to each other and are a hydrogen atom, a hydrocarbon group, or a

silicon-containing group, or may be bonded together to form a ring structure;

R^6, R^7, R^{10} and R^{11} are not simultaneously hydrogen atoms;

R^{13} and R^{14} are each an aryl group, and may be identical or different;

M represents Ti, Zr or Hf;

Y represents carbon or silicon;

Q represents halogen, a hydrocarbon group, an anionic ligand, or a lone electron pair, and may be selected from an identical or different combination of neutral ligands capable of coordination; and

j is an integer of 1 to 4, and

(B) at least one or more kinds of compounds selected from the group consisting of

(b-1) an organoaluminum oxy-compound, and

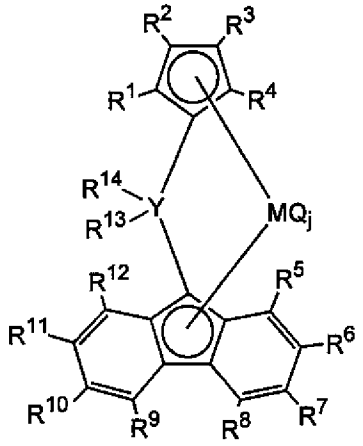
(b-3) an organoaluminum compound.

2. (Canceled)

3. (Previously Presented) A process for producing an olefin polymer, comprising:

carrying out solution polymerization of ethylene and one or more kinds of monomers selected from α-olefins at a temperature ranging from 120 to 300°C, in the presence of a catalyst for olefin polymerization, said catalyst comprising:

(A) a bridged metallocene compound represented by the general formula [I] described below,



wherein R^1, R^2, R^3, R^4, R^5, R^8, R^9 and R^{12} are each a hydrogen atom, a hydrocarbon group, or a silicon-containing group, and may be identical or different, or neighboring groups may be bonded together to form a ring structure;

R^6 and R^{11} are identical and are each a hydrocarbon group or a silicon-containing group, or may be bonded together to form a ring structure;

R^7 and R^{10} are identical to each other and are each a hydrocarbon group or a silicon-containing group, or may be bonded together to form a ring structure;

R^{13} and R^{14} are each an aryl group, and may be identical or different;

M is Ti, Zr or Hf;

Y represents carbon or silicon;

Q represents halogen, a hydrocarbon group, an anionic ligand, or a lone electron pair, and may be selected from an identical or different combination of neutral ligands capable of coordination; and

j is an integer of 1 to 4, and

(B) at least one compound selected from the group consisting of

(b-1) an organoaluminum oxy compound,

(b-2) a compound which reacts with the bridged metallocene compound (A) to form an ion pair, and

(b-3) an organoaluminum compound.

4. (Previously Presented) The process of claims 1 or 3, wherein M represents Zr or Hf.